

## Inter-Office Correspondence

### MISSOURI DEPARTMENT OF TRANSPORTATION

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DATE: May 30, 2013

TO: Division Engineer, Design  
Attn: Design Standards

FROM: Dion Knipp, Central Distric LPA Liaison  
(LPA Consultant)

SUBJECT: Design  
Route C, Cole County  
Federal Project No. SRTS-INF-H31D(103)  
Public Interest Finding

With reference to the above mentioned project, we request approval of a finding in the public interest to use the SZ-1400 Solar Powered flashing yellow signal manufactured by JSF Technologies.

Missouri Department of Transportation requested that this specific signal be used along Route C for this LPA project. The project includes construction of new sidewalks, crosswalks, and storm sewer. MoDOT has used this specific model for other new construction projects along their highways. It is therefore desirable that the product synchronize with their existing criteria for such a device.

Past field performance has demonstrated that this product is relatively inexpensive, durable, and easy to operate. It will not differ from existing crosswalk signals, nor will it necessitate additional training of personnel.

Approval of this request at your earliest convenience would be appreciated. This project is scheduled for a 24<sup>th</sup> day of June, 2013 bid opening.

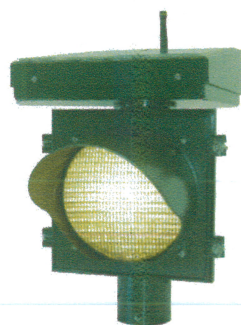
**I do hereby certify that in accordance with the requirements of 23 CFR 635.411(a)(2), this patented or proprietary item is essential for synchronization with existing highway facilities.**

  
Kathryn P. Harvey, State Design Engineer

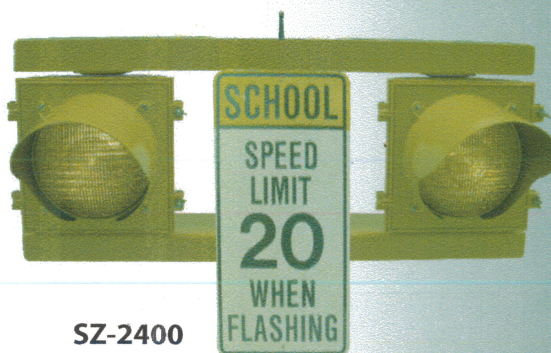


# JSF Technologies

## SZ-Series - School Zone Beacon System



SZ-1400



SZ-2400



SZ-7400

### System Overview

The JSF School Zone Beacon flashes at scheduled times every school day, all year long. A flash schedule is created on the internet, to include morning and afternoon flash cycles, early dismissal days, holidays and special events. By pressing SEND, the schedule is transmitted to the beacon via long-range "Narrow-Band PCS" wireless signal.

Each school will have one "Primary Beacon" to receive long-range communication and store the annual flash schedule. In addition, the school can have any number of "Satellite Beacons" which receive short-range on/off commands from the Primary Beacon.

JSF's School Zone beacons can be integrated with JSF's Pedestrian Activated Crosswalk beacons so that they all flash during school zone hours and revert to Ped-activation the remainder of the day.

JSF Technologies Schoolzone Scheduler

Moses Lake School Moses Lake - Washington Schedule Name [Save schedule](#)

SCHOOL DAYS EARLY DISMISSAL DAYS HOLIDAYS SPECIAL EVENTS

[new event](#) [delete event](#)

SEL	START DATE (YYYY-MM-DD)	END DATE (YYYY-MM-DD)	START TIME (HH:MM)	COMMENTS
<input type="checkbox"/>	2006-11-22	2006-11-24	08:00 am	Thanksgiving
<input type="checkbox"/>	2007-03-09	2007-03-09	08:00 am	Non-Contracted
<input type="checkbox"/>	2007-05-28	2007-05-28	08:00 am	Memorial Day
<input type="checkbox"/>	2007-04-02	2007-04-05	08:00 am	Spring Break
<input type="checkbox"/>	2007-01-26	2007-01-26	08:00 am	Record-Keeping
<input type="checkbox"/>	2006-11-09	2006-11-09	08:00 am	Record-Keeping
<input type="checkbox"/>	2006-10-13	2006-10-13	08:00 am	Learning Improv
<input type="checkbox"/>	2007-02-19	2007-02-19	08:00 am	Presidents Day
<input type="checkbox"/>	2007-01-15	2007-01-15	08:00 am	Martin Luther K
<input type="checkbox"/>	2006-12-20	2007-01-02	08:00 am	Winter Break
<input type="checkbox"/>	2006-11-10	2006-11-10	08:00 am	Veterans Day
<input type="checkbox"/>	2006-09-04	2006-09-04	08:00 am	Labor Day

[new event](#) [delete event](#)

### Configuration

Single or dual head, vertical or horizontal configurations available

### Installation

As with all JSF products, School Zone beacons are solar powered and communicate via spread spectrum radio, thus require no wiring, trenching or roadwork. They install in minutes on any suitable traffic pole.

### Flash Patterns

- MUTCD 1/2 second on, 1/2 second off
- JSF High Visibility Strobe

### Communication

- Long range communication provided by Narrow-Band PCS wireless signal
- In regions where narrow-band PCS is not available, the beacon is programmed by direct serial link from a laptop computer
- Short-range, inter-beacon communication provided by ISM 902-928 MHz spread spectrum

### Materials

- Brackets: 6061-T6 powder coated aluminum
- Signal Head: Polycarbonate: available in green, yellow or black

### Mounting Pole Size

- Standard 2" - 4 1/2" round, square or U-channel poles

### Environmental Requirements

- Operating Temperature: -40°F to +165°F
- Minimum daily solar insolation: 0.8 hours
- Maximum installation latitude: 56° N/S
- Operates at rated usage for 100+ Days without solar charging

## Components

### LED Face

- Industry standard Amber
- Industry standard 8" or 12"
- 12 Volt Swarco brand LED
- Meets MUTCD and ITE specifications

### Circuit board

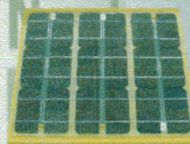
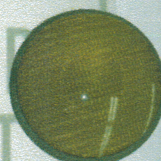
- Conformal coated and weather sealed
- Industrial grade components

### Solar Panels

- Custom made 4.5W, 6V, 765mA

### Batteries

- Hawker 25 Ah, 2V, BC Cell



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